REMARKS

Applicants appreciate the courtesies extended to their representatives, Allan Fanucci and Evert Uy, by Examiner Carolyn Paden, during an interview on October 22, 2003. The comments appearing herein are substantially the same as those presented and discussed during the interview.

Claims 1, 2, 4-6, 20, 22, 23, and 29 are pending and under active consideration in this application. Claims 9 and 29 were amended to remove the degree symbol (°) from the first number cited in the temperature range. The other claims in the application include the degree symbol in only the second number in the temperature range.

Claims 2 and 23 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,505,982 to Krawczyk et al. ("Krawcyzk"), as further evidenced by safety data for sorbitan monostearate and U.S. Patent No. 3,733,210 to Seiden ("Seiden"). Claim 2 recites a chocolate composition comprising an emulsifier component of a monoglyceride, a diglyceride, a sorbitan ester or a sugar ester, a melting point from about 50 to 90°C and a hydrophilic lipophilic balance ("HLB") value from about 2 to 10, and further wherein the emulsifier component is present in an amount of about 2.2 to 6 percent by weight. Krawczyk discloses a chocolate containing a composite of a cellulose and a surfactant with an HLB within the range of from 1-40 (Col. 1, lines 52-56). The Examiner maintains that Example 1 of Krawcyzk teaches an emulsifier with a melting point within the range of claim 2. Applicants respectfully disagree.

Example 1 teaches the preparation of a coprocessed cellulose surfactant ingredient (Col. 10, lines 23-24). Sorbitan monostearate is first heated to 76.7°C, then added to the cellulose dispersion in water (Col. 10, lines 32-35). This mixture is maintained at a temperature of 71.7°C "to keep the emulsifier above its melting point and in a liquid state" (Col. 10, lines 36-38). This information does *not* disclose an emulsifier having a melting point from about 50 to 90°C. Indeed, in Krawcyzk, the whole mixture is heated to 71.7°C to keep all the components in a liquid state. At the most, Krawcyzk tells the reader that the emulsifier has a melting point below 71.7°C. In addition, it appears that its melting point must be less than 60°C since the mixture is homogenized at a temperature of between 60 to 65°C (Col. 10, line 39). Example 4 shows that the same surfactant can be dissolved in propanol at 60°C (Col. 12, line 5), while Example 2 shows that a similar surfactant has a melting point of 54.4°C (Col. 10, lines 64-66). Certainly, it is unclear what the melting temperature of the emulsifier in Krawcyzk is.

Significantly, the amount of emulsifier used in the present invention is much greater than that used in Krawcyzk. The mixture of Example 1 consists of 1,846.15 grams of cellulose, 11,287.15 grams of deionized water, and 200 grams of sorbitan monostearate (Col. 10, lines 27-32). Thus, the weight percent of sorbitan monostearate in the composite is 1.5 percent. Logically, the weight percent of the sorbitan monostearate in a resulting confection will be less than 1.5 percent because of the additional ingredients. Claim 2 recites an emulsifier component present in an amount of about *2.2 to 6 percent by weight* of the confectionary product. The weight percent of sorbitan monostearate in the resulting chocolate confections of Krawcyzk in Example 6 do not come close to the amounts claimed. For instance, Example 6d contains 1.2 percent sorbitan monostearate, Example 6e contains 2 percent sorbitan monostearate, Example 6f contains 1 percent sorbitan monostearate, Example 6g contains 0.36 percent sorbitan monostearate, and Example 6h contains 1.2 percent sorbitan monostearate (*See* Table 1). These amounts are calculated from the ratio (*i.e.*, weight percent) of surfactant in the composite and the amount of composite used (*e.g.*, in Example 6d, 20 percent of 6 percent is 1.2 percent). Also, Krawczyk states that the amounts used in Table 1 represent high levels of the composite (*See* Col. 14, lines 59-62). As all emulsifiers of Table 1 are present in an amount of 2 percent or less, while the present claim recites a minimum value of 2.2 percent, Krawcyzk does not anticipate claim 2. Pursuant to the discussion with the Examiner, the word "about" has been removed from claim 2 to further distinguish the percentage of emulsifier in the present invention from Krawcyzk.

Moreover, Krawcyzk does not disclose emulsifiers with the specific HLB values of claim 2. Instead, Krawcyzk enumerates surfactants with a broad range of HLB values, from about 1 to 40 (Col. 3, lines 8-9). For example, Krawcyzk refers to Cetodan acetylated monoglycerides with an HLB of 1.5 (Col. 3, lines 48-50) and Capmul POEL polyoxyethylene (20) sorbitan monolaurate with an HLB of 16.7 (Col. 4, lines 22-24). Indeed, although Krawczyk prefers surfactants having an HLB value of between 2 and 7, Krawczyk also prefers to use other surfactants having much higher HLB values. Table 1 illustrates the use of sodium stearoyl lactate, a compound having an HLB value of 20. For all these reasons, Krawcyzk cannot anticipate claim 2.

Because claim 23 depends from claim 2, claim 23 should also be allowed.

Claims 1, 4-6, 20, 22, and 29 were rejected under 35 U.S.C. § 102(b) as being anticipated by Krawcyzk as further evidenced by the Food Ingredient Catalog. Claim 1 recites a chocolate composition comprising an emulsifier component having a melting point

from about 60 to 90°C and a hydrophilic lipophilic balance value from about 2 to 10. The emulsifier component comprises at least one of a diacetyltartaric acid ester of monoglycerides, mono- and diglycerides of vegetable oils, partially hydrogenated monoglycerides, fully hydrogenated monoglycerides, or sugar esters. In particular, claim 1 does not refer to a sorbitan ester, which is the emulsifier preferred by Krawcyzk. As previously explained, Krawczyk is directed to a reduced calorie confection using a cellulose surfactant. The cellulose surfactant taught by Krawczyk comprises microcrystalline cellulose/surfactant composite, but it does not disclose, teach or suggest the specific emulsifiers that are recited in the present claims.

Furthermore, Krawczyk cannot anticipate these claims because it discloses a much broader range of surfactants, *i.e.*, those that have HLB values of from 1 to 40 (*See e.g.*, those listed in Col. 4, lines 9-26 and Example 6j in Table 1). There is no reference at all to the specific range of HLB values claimed. Moreover, these surfactants are used in combination with a cellulose material as a composite. Cellulose materials are not disclosed or claimed in the present invention. In contrast, Applicants disclose certain specific emulsifiers and further define them as having a melting point of at least 60°C.

The skilled artisan is not led to the present invention by the disclosure of sorbitan monostearate in Example 1. There is no teaching in Krawczyk to use only high melting point emulsifiers of the types mentioned in claim 1. As noted above, sorbitan monostearate has a melting point that is below that of the claim, with 54.4°C disclosed in Example 2. Thus, claim 1 is patentable over Krawczyk.

As claims 4-6 and 20 depend from claim 1, these claims are also allowable.

Applicants do not understand why claim 22 was rejected since claim 7, from which claim 22 depends, was allowed (Office Action, page 2). Applicants respectfully submit that claim 22 should be allowed.

The remaining independent claim, claim 29, is directed to a method of manufacturing chocolate. It includes the step of adding an emulsifier having a melting point from about 50 to 90°C and hydrophilic lipophilic balance value of about 2 to 10 and being added in an amount from about 1 to 6 percent by weight of the chocolate composition. This claim is patentable for many of the same reasons as claim 2. As stated earlier, Krawcyzk does *not* disclose emulsifiers having a melting point between 50 to 90°C. Krawcyzk also does *not* teach emulsifiers having HLB values of about 2 to 10. Instead, Krawczyk teaches a

broad range of HLB values, from about 1 to 40 (Col. 1, lines 52-56) with no preference for the presently claimed range.

In addition, claim 29 recites that a chocolate can be obtained that maintains its structure up to a temperature of at least about 36°C. Nowhere can this feature be found in Krawcyzk. The primary use of the composite of Krawcyzk is as a low calorie bulking agent or as a texturizer (Col. 6, lines 50-51). The emulsifier/cellulose composite of Krawcyzk is formulated to minimize the chalky taste of cellulose (Col. 1, lines 46-48 and Col. 6, lines 38-43). Specifically, the composite in chocolate provides a significant reduction in the fat content of the chocolate (Col. 9, lines 21-22 and 29-30). The composite not only reduces the fat calories in chocolate, it can reduce the sugar calories of the chocolate as well (Col. 9, lines 38-39). In contrast, the present invention prevents chocolate confections from melting at elevated temperatures. This feature further distinguishes claim 29 from Krawczyk. Thus, this rejection based on Krawczyk should be withdrawn.

In view of the above, all rejections have been overcome and should be withdrawn. Accordingly, the entire application is believed to be in condition for allowance, early notice of which would be appreciated.

Respectfully submitted,

10/22/03
Date

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